

Laboratory Report Number: L13110833

Mark Lyon
Environmental Waste Solutions
2440 Louisiana Blvd
Albuquerque, NM 87110

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac's Ohio Valley Division (OVD). If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed below.

Laboratory Contact:
Stephanie Mossburg – Team Chemist/Data Specialist
(740) 373-4071
Stephanie.Mossburg@microbac.com

I certify that all test results meet all of the requirements of the DoD QSM and other applicable contract terms and conditions. Any exceptions are attached to this cover page or addressed in the method narratives presented in the report. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories, DoD ELAP certification number 2936.01. The reported results are related only to the samples analyzed as received.

This report was certified on December 01 2013



David Vandenberg – Managing Director

State of Origin: NM
Accrediting Authority: N/A ID:N/A
QAPP: DOD Ver 4.1 without flagging



Record of Sample Receipt and Inspection

Comments/Discrepancies

This is the record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

The following discrepancies were noted:

| Discrepancy | Resolution |
|---|-----------------------|
| The sample(s) were out of the acceptable pH range: MPL 19-1113-1: the PH is out on 1 of 2 metals containers. CLS Added 5ml HNO3 Lot#: RGT 28569 11/14/13 @ 1325. PH did adjust. CLS | Proceed as noted. SLM |

Coolers

| Cooler # | Temperature Gun | Temperature | COC # | Airbill # | Temp Required? |
|----------|-----------------|-------------|-------|-----------|----------------|
| 00110855 | H | 1.0 | | | X |

Inspection Checklist

| # | Question | Result |
|----|--|--------|
| 1 | Were shipping coolers sealed? | Yes |
| 2 | Were custody seals intact? | Yes |
| 3 | Were cooler temperatures in range of 0-6? | Yes |
| 4 | Was ice present? | Yes |
| 5 | Were COC's received/information complete/signed and dated? | Yes |
| 6 | Were sample containers intact and match COC? | Yes |
| 7 | Were sample labels intact and match COC? | Yes |
| 8 | Were the correct containers and volumes received? | Yes |
| 9 | Were samples received within EPA hold times? | Yes |
| 10 | Were correct preservatives used? (water only) | Yes |
| 11 | Were pH ranges acceptable? (voa's excluded) | No |
| 12 | Were VOA samples free of headspace (less than 6mm)? | NA |

Lab Report #: L13110833

Lab Project #: 3005.011

Project Name: White Sands MR

Lab Contact: Stephanie Mossburg

Samples Received

| Client ID | Laboratory ID | Date Collected | Date Received |
|---------------|---------------|------------------|------------------|
| MPL 24-1113-1 | L13110833-01 | 11/13/2013 09:55 | 11/14/2013 10:54 |
| MPL 19-1113-1 | L13110833-02 | 11/13/2013 12:52 | 11/14/2013 10:54 |



Login Number: L13110833
Department: Conventionals
Analyst: Tammy Morris

METHOD

Analysis SW846 9040C,9045D/EPA 150.1/SM4500-H B (pH)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 75319
Approved By: Deanna Hesson

A handwritten signature in black ink, appearing to read "Deanna Hesson", is written over a horizontal line.



Login Number: L13110833
Department: Metals
Analyst: Kim Rhodes

METHOD

Preparation: SW-846 3015

Analysis: SW-846 6010

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: WG453993 - The method blank associated with this analytical batch yielded a result for zinc that exceeded the LOD. All QA/QC and client samples were redigested and reanalyzed for zinc with a compliant method blank.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG453993 - Tin was not added to the non-client post digestion sample, therefore, client sample 01 as well as a post digestion spike and serial dilution were reanalyzed on a later calibration for tin.

WG454242 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: WG453993 - Client sample 02 required a dilution analysis in order to obtain a result for calcium within the calibration range.

Narrative ID: 75161

Approved By: Maren Beery

Maren Beery



Login Number: L13110833
Department: Metals
Analyst: Ji Hu

METHOD

Preparation: SW-846 3015

Analysis: SW-846 6020

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

Continuing Calibration Blank: WG453372 - Due to continuing calibration blank failure for selenium on 19-Nov-2013 at 13:09, all batch QA/QC and client samples 01 and 02 were reanalyzed on a later calibration which was compliant for selenium.

Low Level Check: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG453372 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 74815

Approved By: Maren Beery

Maren Beery



Login Number: L13110833
Department: Metals - AA
Analyst: Pierce Morris

METHOD

Preparation: SW-846 7470

Analysis: SW-846 7470

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG453162 - All acceptance criteria were met.

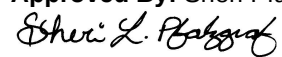
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 74731

Approved By: Sheri Pfalzgraf





Login Number: L13110833
Department: General Chromatography
Analyst: Jeremy Kinney

METHOD

Analysis EPA300.0/SW846 9056

HOLDING TIMES

Sample Analysis: Hold times for NO₂ and NO₃ are 48 hours and the hold times for F, Cl, Br, and SO₄ are 28 days. The hold time forms calculate the hold time based on 48 hours. All samples were analyzed in hold.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: The client did not specify an MS/MSD for this sample delivery group.

SAMPLES

Samples: Fraction -01 was analyzed at a dilution only due to the concentration of one or more of the target analytes being near or greater than the ICAL.

MANUAL INTEGRATION: No manual integration was required.

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Narrative ID: 74990
Approved By: Eric Lawson

A handwritten signature in black ink, appearing to read "Eric Lawson", is written over a light gray rectangular background.



Login Number: L13110833
Department: Conventionals
Analyst: Brice Fenton

METHOD

Analysis EPA 310.2 (Alkalinity)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 75317
Approved By: Deanna Hesson

A handwritten signature in cursive script, appearing to read "Deanna Hesson", written in black ink.



Login Number: L13110833
Department: Conventionals
Analyst:

METHOD

Analysis SW846 9014/9010C/SM4500-CN-C,E-20th (Cyanide)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: Cyanide-Amenable is the difference between the total cyanide and the treated cyanide. The LCS is analyzed to show that all of the cyanide is amenable (the treated portion is ND). The LCS forms cannot calculate cyanide amenable. The LCS is acceptable.

| Sample # | Analyte | Date | Result | Lower | Upper | Type |
|-------------|---------|---------------------|--------|-------|-------|----------|
| WG453588-02 | Cyanide | 2013-11-21 13:30:04 | 2.00 | 90 | 110 | Recovery |

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 75107

Approved By: Deanna Hesson

A handwritten signature in cursive script, appearing to read "Deanna Hesson".



Login Number: L13110833
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis EPA 120.1/SM2510 B (Conductivity)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 75318
Approved By: Deanna Hesson

A handwritten signature in black ink, appearing to read "Deanna Hesson", is written over a horizontal line.



Login Number: L13110833
Department: Conventionals
Analyst: Brice Fenton

METHOD

Analysis EPA 350.1/SM4500-NH3 B(NH3)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 75320
Approved By: Deanna Hesson

A handwritten signature in cursive script, appearing to read "Deanna Hesson", written in black ink.



Login Number: L13110833
Department: Conventionals
Analyst: Brice Fenton

METHOD

Analysis EPA 353.2/SM4500-NO3 F (Nitrate)

HOLDING TIMES

Sample Analysis: The instrument used for the analysis of nitrate only analyzes for nitrate-nitrite (NO₃NO₂) which is the amount of total nitrate (NO₃) and nitrite (NO₂) combined. The NO₃ concentration is determined by analyzing for NO₃NO₂ and NO₂ and calculating NO₃ by the difference. An unpreserved bottle only has a 48 hour hold time for NO₃ and NO₂ separately. However if the bottle is preserved with sulfuric acid, the hold time for NO₃NO₂ is 28 days. The NO₂ was analyzed within 48 hours. The NO₃NO₂ was analyzed from a preserved container within 28 days..

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 75321
Approved By: Deanna Hesson

Dannat/sson



Login Number: L13110833
Department: Conventionals
Analyst: Dorothy Payne

METHOD

Analysis EPA 365.2/SM4500-P E (Orthophosphate)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 75322
Approved By: Deanna Hesson

A handwritten signature in black ink, appearing to read "Deanna Hesson", is written over a horizontal line.



Login Number: L13110833
Department: Conventionals
Analyst: April Greene

METHOD

Analysis EPA 160.1/SM2540 C(Total Dissolved Solids)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: Analytes were detected above the applicable reporting limit for the following analytes: Total Dissolved Solids. Please see the applicable QC report for a detailed presentation of the failures.

| Sample # | Analyte | Date | Result | Lower | Upper | Type |
|-------------|------------------------|---------------------|--------|-------|-------|------|
| WG453215-02 | Total Dissolved Solids | 2013-11-18 14:26:01 | 8.00 | | 5.0 | RL |

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 75325
Approved By: Deanna Hesson

Dannat/sson



Login Number: L13110833
Department: Conventionals
Analyst: Brice Fenton

METHOD

Analysis Water: EPA 415.1/SM5310C/SW846 9060 (Total Organic Carbon)
Soil: Lloyd-Khan Methodology

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 75323
Approved By: Deanna Hesson

A handwritten signature in cursive script that reads "Deanna Hesson".



Login Number: L13110833
Department: Conventionals
Analyst: April Greene

METHOD

Analysis EPA 160.2/SM2540 D (Total Suspended Solids)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 75324
Approved By: Deanna Hesson

A handwritten signature in black ink, appearing to read "Deanna Hesson", is written over the printed name.

Certificate of Analysis

| | | |
|---------------------------------------|---------------------------------|------------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: ICP-THERMO2 |
| Client ID: MPL 24-1113-1 | Prep Method: 3015 | Prep Date: 11/20/2013 09:24 |
| Matrix: Water | Analytical Method: 6010B | Cal Date: 11/25/2013 07:59 |
| Workgroup #: WG453993 | Analyst: KHR | Run Date: 11/25/2013 12:46 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: T2.112513.124638 |
| Sample Tag: 02 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|------------|--|--------|------|-------|-------|
| Tin, Total | 7440-31-5 | | U | 0.500 | 0.250 |
| U | Analyte was not detected. The concentration is below the reported LOD. | | | | |

Certificate of Analysis

| | | |
|---------------------------------------|---------------------------------|------------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: ICP-THERMO2 |
| Client ID: MPL 24-1113-1 | Prep Method: 3015 | Prep Date: 11/20/2013 09:24 |
| Matrix: Water | Analytical Method: 6010B | Cal Date: 11/23/2013 09:54 |
| Workgroup #: WG453993 | Analyst: KHR | Run Date: 11/23/2013 13:10 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: T2.112313.131025 |
| Sample Tag: 01 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|------------------|--|--------|------|---------|---------|
| Beryllium, Total | 7440-41-7 | | U | 0.00200 | 0.00100 |
| Calcium, Total | 7440-70-2 | 14.7 | | 0.500 | 0.250 |
| Magnesium, Total | 7439-95-4 | 2.95 | | 0.500 | 0.250 |
| Potassium, Total | 7440-09-7 | 1.59 | | 1.00 | 0.500 |
| Sodium, Total | 7440-23-5 | 29.8 | | 0.500 | 0.250 |
| Vanadium, Total | 7440-62-2 | | U | 0.0100 | 0.00500 |
| J | Estimated value ; the analyte concentration was less than the LOQ. | | | | |
| U | Analyte was not detected. The concentration is below the reported LOD. | | | | |

Certificate of Analysis

| | | |
|---------------------------------------|---------------------------------|------------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: ICP-THERMO2 |
| Client ID: MPL 24-1113-1 | Prep Method: 3015 | Prep Date: 11/25/2013 11:32 |
| Matrix: Water | Analytical Method: 6010B | Cal Date: 11/25/2013 07:59 |
| Workgroup #: WG454242 | Analyst: KHR | Run Date: 11/25/2013 16:13 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: T2.112513.161307 |
| Sample Tag: 03 | Units: mg/L | |

| Analyte | | CAS # | Result | Qual | LOQ | LOD |
|-------------|--|-----------|--------|------|--------|--------|
| Zinc, Total | | 7440-66-6 | 0.0133 | J | 0.0200 | 0.0100 |
| J | Estimated value ; the analyte concentration was less than the LOQ. | | | | | |

Certificate of Analysis

| | | |
|---------------------------------------|--------------------------------|------------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: ICP-MS2 |
| Client ID: MPL 24-1113-1 | Prep Method: 3015 | Prep Date: 11/15/2013 09:51 |
| Matrix: Water | Analytical Method: 6020 | Cal Date: 11/21/2013 10:08 |
| Workgroup #: WG453372 | Analyst: JYH | Run Date: 11/21/2013 13:44 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: NI.112113.134452 |
| Sample Tag: 02 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|-----------------|--|---------|------|---------|----------|
| Selenium, Total | 7782-49-2 | 0.00118 | | 0.00100 | 0.000500 |
| U | Analyte was not detected. The concentration is below the reported LOD. | | | | |

Certificate of Analysis

| | | |
|---------------------------------------|--------------------------------|------------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: ICP-MS2 |
| Client ID: MPL 24-1113-1 | Prep Method: 3015 | Prep Date: 11/15/2013 09:51 |
| Matrix: Water | Analytical Method: 6020 | Cal Date: 11/19/2013 12:44 |
| Workgroup #: WG453372 | Analyst: JYH | Run Date: 11/19/2013 14:03 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: NI.111913.140321 |
| Sample Tag: 01 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|------------------|--|---------|------|----------|----------|
| Antimony, Total | 7440-36-0 | | U | 0.00100 | 0.000500 |
| Arsenic, Total | 7440-38-2 | 0.00127 | | 0.00100 | 0.000500 |
| Barium, Total | 7440-39-3 | 0.0325 | | 0.00300 | 0.00150 |
| Cadmium, Total | 7440-43-9 | | U | 0.000600 | 0.000300 |
| Chromium, Total | 7440-47-3 | | U | 0.00200 | 0.00100 |
| Cobalt, Total | 7440-48-4 | | U | 0.00100 | 0.000500 |
| Copper, Total | 7440-50-8 | 0.00399 | | 0.00200 | 0.00100 |
| Lead, Total | 7439-92-1 | | U | 0.00100 | 0.000500 |
| Manganese, Total | 7439-96-5 | 0.00570 | | 0.00200 | 0.00100 |
| Nickel, Total | 7440-02-0 | | U | 0.00400 | 0.00200 |
| Silver, Total | 7440-22-4 | | U | 0.00100 | 0.000500 |
| Thallium, Total | 7440-28-0 | | U | 0.000200 | 0.000100 |
| U | Analyte was not detected. The concentration is below the reported LOD. | | | | |

Certificate of Analysis

| | | |
|---------------------------------------|---------------------------------|------------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: CVAA1 |
| Client ID: MPL 24-1113-1 | Prep Method: 7470A | Prep Date: 11/15/2013 09:38 |
| Matrix: Water | Analytical Method: 7470A | Cal Date: 11/18/2013 10:19 |
| Workgroup #: WG453162 | Analyst: PDM | Run Date: 11/18/2013 11:43 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: M7.111813.114302 |
| Sample Tag: 01 | Units: mg/L | |

| Analyte | | CAS # | Result | Qual | LOQ | LOD |
|---------|--|-----------|--------|------|----------|----------|
| Mercury | | 7439-97-6 | | U | 0.000200 | 0.000100 |
| U | Analyte was not detected. The concentration is below the reported LOD. | | | | | |

Certificate of Analysis

| | | |
|---------------------------------------|---------------------------------|------------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: IC1 |
| Client ID: MPL 24-1113-1 | Prep Method: 300.0 | Prep Date: 11/21/2013 09:20 |
| Matrix: Water | Analytical Method: 300.0 | Cal Date: 11/06/2013 10:26 |
| Workgroup #: WG453893 | Analyst: JBK | Run Date: 11/21/2013 12:11 |
| Collect Date: 11/13/2013 09:55 | Dilution: 2 | File ID: I1_112113-13 |
| Sample Tag: DL01 | Units: mg/L | |

| Analyte | | CAS # | Result | Qual | LOQ | LOD |
|----------|--|------------|--------|------|-------|-------|
| Chloride | | 16887-00-6 | 38.3 | | 0.400 | 0.200 |
| Fluoride | | 16984-48-8 | 0.242 | J | 0.400 | 0.200 |
| Sulfate | | 14808-79-8 | 65.5 | | 2.00 | 1.00 |
| J | Estimated value ; the analyte concentration was less than the LOQ. | | | | | |

Certificate of Analysis

| | | |
|---------------------------------------|---------------------------------|-----------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: ORION-4STAR |
| Client ID: MPL 24-1113-1 | Prep Method: 9040C | Prep Date: N/A |
| Matrix: Water | Analytical Method: 9040C | Cal Date: |
| Workgroup #: WG452906 | Analyst: TMM | Run Date: 11/14/2013 17:03 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: OS13111508261501 |
| Sample Tag: | Units: UNITS | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|----------------------------------|---------|--------|------|-------|-------|
| Corrosivity pH | 10-29-7 | 7.66 | | 0.000 | 0.000 |
| Temperature At Determination (C) | | | | 0.000 | 0.000 |

| | | |
|---------------------------------------|---------------------------------|-----------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: SMARTCHEM2 |
| Client ID: MPL 24-1113-1 | Prep Method: 310.2 | Prep Date: N/A |
| Matrix: Water | Analytical Method: 310.2 | Cal Date: 11/18/2013 15:33 |
| Workgroup #: WG453260 | Analyst: BAF | Run Date: 11/18/2013 15:45 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: S2131118004.028 |
| Sample Tag: 01 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|------------------------------|---------|--------|------|------|------|
| Alkalinity, Total (as CaCO3) | 11-43-8 | 53.5 | | 20.0 | 10.0 |

| | | |
|---------------------------------------|---------------------------------|-----------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: SMARTCHEM2 |
| Client ID: MPL 24-1113-1 | Prep Method: 310.2 | Prep Date: N/A |
| Matrix: Water | Analytical Method: 310.2 | Cal Date: 11/18/2013 15:33 |
| Workgroup #: WG453260 | Analyst: BAF | Run Date: 11/18/2013 15:45 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: S2131118004.028 |
| Sample Tag: 01 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|------------------------------------|---------|--------|------|------|------|
| Alkalinity, Bicarbonate (as CaCO3) | 13-00-3 | 53.5 | | 20.0 | 10.0 |

| | | |
|---------------------------------------|---------------------------------|-----------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: SMARTCHEM2 |
| Client ID: MPL 24-1113-1 | Prep Method: 310.2 | Prep Date: N/A |
| Matrix: Water | Analytical Method: 310.2 | Cal Date: 11/18/2013 15:33 |
| Workgroup #: WG453260 | Analyst: BAF | Run Date: 11/18/2013 15:45 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: S2131118004.028 |
| Sample Tag: 01 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|----------------------------------|---------|--------|------|------|------|
| Alkalinity, Carbonate (as CaCO3) | 13-01-4 | | U | 20.0 | 10.0 |

Certificate of Analysis

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|---|--|
| U | Analyte was not detected. The concentration is below the reported LOD. |
|---|--|

Certificate of Analysis

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|---------------------------------------|--------------------------------------|-----------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: UV-120-1V |
| Client ID: MPL 24-1113-1 | Prep Method: 9014-9010C | Prep Date: N/A |
| Matrix: Water | Analytical Method: 9014-9010C | Cal Date: 11/21/2013 10:10 |
| Workgroup #: WG453554 | Analyst: DCM | Run Date: 11/21/2013 11:30 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: 1V.1311211130-10 |
| Sample Tag: | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|---------|---------|--------|------|--------|---------|
| Cyanide | 57-12-5 | 0.237 | | 0.0100 | 0.00500 |

| | | |
|---------------------------------------|---------------------------------------|-----------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: UV-120-1V |
| Client ID: MPL 24-1113-1 | Prep Method: SM4500-CN-I | Prep Date: N/A |
| Matrix: Water | Analytical Method: SM4500-CN-I | Cal Date: 11/21/2013 10:20 |
| Workgroup #: WG453794 | Analyst: DCM | Run Date: 11/21/2013 13:10 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: 1V.1311211310-08 |
| Sample Tag: DL01 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|---------------------------|---------|--------|------|--------|---------|
| Cyanide, Weak/Dissociable | 57-12-5 | 0.0327 | | 0.0100 | 0.00500 |

| | | |
|---------------------------------------|--|-----------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: UV-120-1V |
| Client ID: MPL 24-1113-1 | Prep Method: SM4500-CN-C,G-1999 | Prep Date: N/A |
| Matrix: Water | Analytical Method: SM4500-CN-C,G-1999 | Cal Date: 11/21/2013 10:10 |
| Workgroup #: WG453588 | Analyst: DCM | Run Date: 11/21/2013 13:30 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: 1V.1311211330-07 |
| Sample Tag: DL02 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|-----------------------------|---------|--------|------|--------|---------|
| Cyanide, Amenable to Chlor. | 57-12-5 | 0.0138 | | 0.0100 | 0.00500 |

| | | |
|---------------------------------------|---------------------------------|-----------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: TIAMO1 |
| Client ID: MPL 24-1113-1 | Prep Method: 120.1 | Prep Date: N/A |
| Matrix: Water | Analytical Method: 120.1 | Cal Date: |
| Workgroup #: WG452867 | Analyst: DIH | Run Date: 11/14/2013 21:45 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: TI.111413.2145CO |
| Sample Tag: 01 | Units: umhos/cm | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|--------------|-------|--------|------|------|------|
| Conductivity | | 444 | | 50.0 | 10.0 |

Certificate of Analysis

| | | |
|---------------------------------------|---------------------------------|-----------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: SMARTCHEM |
| Client ID: MPL 24-1113-1 | Prep Method: 350.1 | Prep Date: N/A |
| Matrix: Water | Analytical Method: 350.1 | Cal Date: 11/21/2013 10:07 |
| Workgroup #: WG453752 | Analyst: BAF | Run Date: 11/21/2013 10:16 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: SC131121001.016 |
| Sample Tag: 01 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|-------------------|--|--------|------|-------|--------|
| Nitrogen, Ammonia | 7664-41-7 | | U | 0.100 | 0.0500 |
| U | Analyte was not detected. The concentration is below the reported LOD. | | | | |

Certificate of Analysis

| | | |
|---------------------------------------|---------------------------------|-----------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: SMARTCHEM |
| Client ID: MPL 24-1113-1 | Prep Method: 353.2 | Prep Date: N/A |
| Matrix: Water | Analytical Method: 353.2 | Cal Date: 11/18/2013 10:58 |
| Workgroup #: WG453287 | Analyst: BAF | Run Date: 11/18/2013 18:25 |
| Collect Date: 11/13/2013 09:55 | Dilution: 4 | File ID: SC13112213220901 |
| Sample Tag: | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|------------------------|-------|--------|------|-------|-------|
| Nitrate-Nitrite (as N) | | 4.22 | | 0.200 | 0.100 |

| | | |
|---------------------------------------|---|-----------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: UV-120-1V |
| Client ID: MPL 24-1113-1 | Prep Method: SM4500-P-E-1999 | Prep Date: N/A |
| Matrix: Water | Analytical Method: SM4500-P-E-1999 | Cal Date: 10/30/2013 09:00 |
| Workgroup #: WG452944 | Analyst: DLP | Run Date: 11/15/2013 09:30 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: 1V.1311150930-11 |
| Sample Tag: | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|----------------|--|--------|------|--------|--------|
| Orthophosphate | 14265-44-2 | 0.0350 | J | 0.0500 | 0.0250 |
| J | Estimated value ; the analyte concentration was less than the LOQ. | | | | |

Certificate of Analysis

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|---------------------------------------|---|-----------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: OVEN |
| Client ID: MPL 24-1113-1 | Prep Method: 160.1/SM2540C | Prep Date: N/A |
| Matrix: Water | Analytical Method: SM2540-C-1997 | Cal Date: |
| Workgroup #: WG453215 | Analyst: ADG | Run Date: 11/18/2013 14:26 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: EN.1311181426-19 |
| Sample Tag: | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|------------------------|-------|--------|------|------|------|
| Total Dissolved Solids | | 240 | | 20.0 | 10.0 |

| | | |
|---------------------------------------|---------------------------------|-----------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: TOC-VWP |
| Client ID: MPL 24-1113-1 | Prep Method: 415.1 | Prep Date: N/A |
| Matrix: Water | Analytical Method: 415.1 | Cal Date: 07/09/2013 14:51 |
| Workgroup #: WG453699 | Analyst: BAF | Run Date: 11/20/2013 19:09 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: TC11202013.008 |
| Sample Tag: 01 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|----------------------|-------|--------|------|------|-------|
| Total Organic Carbon | TOC | 1.69 | | 1.00 | 0.500 |

| | | |
|---------------------------------------|---|-----------------------------------|
| Sample #: L13110833-01 | PrePrep Method: N/A | Instrument: OVEN |
| Client ID: MPL 24-1113-1 | Prep Method: 160.2/SM2540D | Prep Date: N/A |
| Matrix: Water | Analytical Method: SM2540-D-1997 | Cal Date: |
| Workgroup #: WG453095 | Analyst: ADG | Run Date: 11/18/2013 08:05 |
| Collect Date: 11/13/2013 09:55 | Dilution: 1 | File ID: EN.1311180805-22 |
| Sample Tag: | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|------------------------|-------|--------|------|------|------|
| Total Suspended Solids | | 107 | | 6.67 | 3.33 |

| | | |
|---------------------------------------|---------------------------------|------------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: ICP-THERMO2 |
| Client ID: MPL 19-1113-1 | Prep Method: 3015 | Prep Date: 11/25/2013 11:32 |
| Matrix: Water | Analytical Method: 6010B | Cal Date: 11/25/2013 07:59 |
| Workgroup #: WG454242 | Analyst: KHR | Run Date: 11/25/2013 16:16 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: T2.112513.161633 |
| Sample Tag: 02 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|-------------|-----------|--------|------|--------|--------|
| Zinc, Total | 7440-66-6 | 0.0235 | | 0.0200 | 0.0100 |

Certificate of Analysis

| | | |
|---------------------------------------|---------------------------------|------------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: ICP-THERMO2 |
| Client ID: MPL 19-1113-1 | Prep Method: 3015 | Prep Date: 11/20/2013 09:24 |
| Matrix: Water | Analytical Method: 6010B | Cal Date: 11/23/2013 09:54 |
| Workgroup #: WG453993 | Analyst: KHR | Run Date: 11/23/2013 13:13 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: T2.112313.131357 |
| Sample Tag: 01 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|------------------|--|--------|------|---------|---------|
| Beryllium, Total | 7440-41-7 | | U | 0.00200 | 0.00100 |
| Magnesium, Total | 7439-95-4 | 4.59 | | 0.500 | 0.250 |
| Potassium, Total | 7440-09-7 | 1.98 | | 1.00 | 0.500 |
| Sodium, Total | 7440-23-5 | 24.2 | | 0.500 | 0.250 |
| Tin, Total | 7440-31-5 | | U | 0.500 | 0.250 |
| Vanadium, Total | 7440-62-2 | | U | 0.0100 | 0.00500 |
| U | Analyte was not detected. The concentration is below the reported LOD. | | | | |

Certificate of Analysis

| | | |
|---------------------------------------|---------------------------------|------------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: ICP-THERMO2 |
| Client ID: MPL 19-1113-1 | Prep Method: 3015 | Prep Date: 11/20/2013 09:24 |
| Matrix: Water | Analytical Method: 6010B | Cal Date: 11/25/2013 07:59 |
| Workgroup #: WG453993 | Analyst: KHR | Run Date: 11/25/2013 12:56 |
| Collect Date: 11/13/2013 12:52 | Dilution: 10 | File ID: T2.112513.125644 |
| Sample Tag: DL01 | Units: mg/L | |

| Analyte | | CAS # | Result | Qual | LOQ | LOD |
|----------------|--|-----------|--------|------|------|------|
| Calcium, Total | | 7440-70-2 | 23.8 | | 5.00 | 2.50 |
| J | Estimated value ; the analyte concentration was less than the LOQ. | | | | | |
| U | Analyte was not detected. The concentration is below the reported LOD. | | | | | |

Certificate of Analysis

| | | |
|---------------------------------------|--------------------------------|------------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: ICP-MS2 |
| Client ID: MPL 19-1113-1 | Prep Method: 3015 | Prep Date: 11/15/2013 09:51 |
| Matrix: Water | Analytical Method: 6020 | Cal Date: 11/21/2013 10:08 |
| Workgroup #: WG453372 | Analyst: JYH | Run Date: 11/21/2013 13:41 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: NI.112113.134148 |
| Sample Tag: 02 | Units: mg/L | |

| Analyte | | CAS # | Result | Qual | LOQ | LOD |
|-----------------|--|-----------|---------|------|---------|----------|
| Selenium, Total | | 7782-49-2 | 0.00190 | | 0.00100 | 0.000500 |
| J | Estimated value ; the analyte concentration was less than the LOQ. | | | | | |
| U | Analyte was not detected. The concentration is below the reported LOD. | | | | | |

Certificate of Analysis

| | | |
|---------------------------------------|--------------------------------|------------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: ICP-MS2 |
| Client ID: MPL 19-1113-1 | Prep Method: 3015 | Prep Date: 11/15/2013 09:51 |
| Matrix: Water | Analytical Method: 6020 | Cal Date: 11/19/2013 12:44 |
| Workgroup #: WG453372 | Analyst: JYH | Run Date: 11/19/2013 14:06 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: NI.111913.140626 |
| Sample Tag: 01 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|------------------|--|---------|------|----------|----------|
| Antimony, Total | 7440-36-0 | | U | 0.00100 | 0.000500 |
| Arsenic, Total | 7440-38-2 | 0.00130 | | 0.00100 | 0.000500 |
| Barium, Total | 7440-39-3 | 0.0445 | | 0.00300 | 0.00150 |
| Cadmium, Total | 7440-43-9 | | U | 0.000600 | 0.000300 |
| Chromium, Total | 7440-47-3 | 0.00405 | | 0.00200 | 0.00100 |
| Cobalt, Total | 7440-48-4 | | U | 0.00100 | 0.000500 |
| Copper, Total | 7440-50-8 | 0.00285 | | 0.00200 | 0.00100 |
| Lead, Total | 7439-92-1 | 0.00123 | | 0.00100 | 0.000500 |
| Manganese, Total | 7439-96-5 | 0.0186 | | 0.00200 | 0.00100 |
| Nickel, Total | 7440-02-0 | 0.00216 | J | 0.00400 | 0.00200 |
| Silver, Total | 7440-22-4 | | U | 0.00100 | 0.000500 |
| Thallium, Total | 7440-28-0 | | U | 0.000200 | 0.000100 |
| J | Estimated value ; the analyte concentration was less than the LOQ. | | | | |
| U | Analyte was not detected. The concentration is below the reported LOD. | | | | |

Certificate of Analysis

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|---------------------------------------|---------------------------------|------------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: CVAA1 |
| Client ID: MPL 19-1113-1 | Prep Method: 7470A | Prep Date: 11/15/2013 09:38 |
| Matrix: Water | Analytical Method: 7470A | Cal Date: 11/18/2013 10:19 |
| Workgroup #: WG453162 | Analyst: PDM | Run Date: 11/18/2013 11:45 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: M7.111813.114533 |
| Sample Tag: 01 | Units: mg/L | |

| Analyte | | CAS # | Result | Qual | LOQ | LOD |
|---------|--|-----------|--------|------|----------|----------|
| Mercury | | 7439-97-6 | | U | 0.000200 | 0.000100 |
| U | Analyte was not detected. The concentration is below the reported LOD. | | | | | |

Certificate of Analysis

| | | |
|---------------------------------------|---------------------------------|------------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: IC1 |
| Client ID: MPL 19-1113-1 | Prep Method: 300.0 | Prep Date: 11/21/2013 09:20 |
| Matrix: Water | Analytical Method: 300.0 | Cal Date: 11/06/2013 10:26 |
| Workgroup #: WG453893 | Analyst: JBK | Run Date: 11/21/2013 12:28 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: I1_112113-14 |
| Sample Tag: 01 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|----------|------------|--------|------|-------|-------|
| Chloride | 16887-00-6 | 14.9 | | 0.200 | 0.100 |
| Fluoride | 16984-48-8 | 0.284 | | 0.200 | 0.100 |
| Sulfate | 14808-79-8 | 51.9 | | 1.00 | 0.500 |

| | | |
|---------------------------------------|---------------------------------|-----------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: ORION-4STAR |
| Client ID: MPL 19-1113-1 | Prep Method: 9040C | Prep Date: N/A |
| Matrix: Water | Analytical Method: 9040C | Cal Date: |
| Workgroup #: WG452906 | Analyst: TMM | Run Date: 11/14/2013 17:05 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: OS13111508262901 |
| Sample Tag: | Units: UNITS | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|----------------------------------|---------|--------|------|-------|-------|
| Corrosivity pH | 10-29-7 | 7.69 | | 0.000 | 0.000 |
| Temperature At Determination (C) | | | | 0.000 | 0.000 |

| | | |
|---------------------------------------|---------------------------------|-----------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: SMARTCHEM2 |
| Client ID: MPL 19-1113-1 | Prep Method: 310.2 | Prep Date: N/A |
| Matrix: Water | Analytical Method: 310.2 | Cal Date: 11/18/2013 15:33 |
| Workgroup #: WG453260 | Analyst: BAF | Run Date: 11/18/2013 15:45 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: S2131118004.029 |
| Sample Tag: 01 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|----------------------------------|--|--------|------|------|------|
| Alkalinity, Carbonate (as CaCO3) | 13-01-4 | | U | 20.0 | 10.0 |
| U | Analyte was not detected. The concentration is below the reported LOD. | | | | |

Certificate of Analysis

| | | |
|---------------------------------------|---------------------------------|-----------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: SMARTCHEM2 |
| Client ID: MPL 19-1113-1 | Prep Method: 310.2 | Prep Date: N/A |
| Matrix: Water | Analytical Method: 310.2 | Cal Date: 11/18/2013 15:33 |
| Workgroup #: WG453260 | Analyst: BAF | Run Date: 11/18/2013 15:45 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: S2131118004.029 |
| Sample Tag: 01 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|------------------------------|---------|--------|------|------|------|
| Alkalinity, Total (as CaCO3) | 11-43-8 | 73.2 | | 20.0 | 10.0 |

| | | |
|---------------------------------------|---------------------------------|-----------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: SMARTCHEM2 |
| Client ID: MPL 19-1113-1 | Prep Method: 310.2 | Prep Date: N/A |
| Matrix: Water | Analytical Method: 310.2 | Cal Date: 11/18/2013 15:33 |
| Workgroup #: WG453260 | Analyst: BAF | Run Date: 11/18/2013 15:45 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: S2131118004.029 |
| Sample Tag: 01 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|------------------------------------|---------|--------|------|------|------|
| Alkalinity, Bicarbonate (as CaCO3) | 13-00-3 | 73.2 | | 20.0 | 10.0 |

| | | |
|---------------------------------------|---------------------------------------|-----------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: UV-120-1V |
| Client ID: MPL 19-1113-1 | Prep Method: SM4500-CN-I | Prep Date: N/A |
| Matrix: Water | Analytical Method: SM4500-CN-I | Cal Date: 11/21/2013 10:20 |
| Workgroup #: WG453794 | Analyst: DCM | Run Date: 11/21/2013 13:10 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: 1V.1311211310-09 |
| Sample Tag: DL01 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|---------------------------|--|--------|------|--------|---------|
| Cyanide, Weak/Dissociable | 57-12-5 | | U | 0.0100 | 0.00500 |
| U | Analyte was not detected. The concentration is below the reported LOD. | | | | |

Certificate of Analysis

| | | |
|---------------------------------------|--------------------------------------|-----------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: UV-120-1V |
| Client ID: MPL 19-1113-1 | Prep Method: 9014-9010C | Prep Date: N/A |
| Matrix: Water | Analytical Method: 9014-9010C | Cal Date: 11/21/2013 10:20 |
| Workgroup #: WG453554 | Analyst: DCM | Run Date: 11/21/2013 11:30 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: 1V.1311211130-11 |
| Sample Tag: | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|---------|--|--------|------|--------|---------|
| Cyanide | 57-12-5 | | U | 0.0100 | 0.00500 |
| U | Analyte was not detected. The concentration is below the reported LOD. | | | | |

Certificate of Analysis

| | | |
|---------------------------------------|--|-----------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: UV-120-1V |
| Client ID: MPL 19-1113-1 | Prep Method: SM4500-CN-C,G-1999 | Prep Date: N/A |
| Matrix: Water | Analytical Method: SM4500-CN-C,G-1999 | Cal Date: 11/21/2013 10:20 |
| Workgroup #: WG453588 | Analyst: DCM | Run Date: 11/21/2013 13:30 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: 1V.1311211330-08 |
| Sample Tag: DL02 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|-----------------------------|--|--------|------|--------|---------|
| Cyanide, Amenable to Chlor. | 57-12-5 | | U | 0.0100 | 0.00500 |
| U | Analyte was not detected. The concentration is below the reported LOD. | | | | |

Certificate of Analysis

| | | |
|---------------------------------------|---------------------------------|-----------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: TIAMO1 |
| Client ID: MPL 19-1113-1 | Prep Method: 120.1 | Prep Date: N/A |
| Matrix: Water | Analytical Method: 120.1 | Cal Date: |
| Workgroup #: WG452867 | Analyst: DIH | Run Date: 11/14/2013 21:47 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: TI.111413.2147CO |
| Sample Tag: 01 | Units: umhos/cm | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|--------------|-------|--------|------|------|------|
| Conductivity | | 329 | | 50.0 | 10.0 |

| | | |
|---------------------------------------|---------------------------------|-----------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: SMARTCHEM |
| Client ID: MPL 19-1113-1 | Prep Method: 350.1 | Prep Date: N/A |
| Matrix: Water | Analytical Method: 350.1 | Cal Date: 11/21/2013 10:07 |
| Workgroup #: WG453752 | Analyst: BAF | Run Date: 11/21/2013 10:16 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: SC131121001.017 |
| Sample Tag: 01 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|-------------------|--|--------|------|-------|--------|
| Nitrogen, Ammonia | 7664-41-7 | | U | 0.100 | 0.0500 |
| U | Analyte was not detected. The concentration is below the reported LOD. | | | | |

Certificate of Analysis

| | | |
|---------------------------------------|---------------------------------|-----------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: SMARTCHEM |
| Client ID: MPL 19-1113-1 | Prep Method: 353.2 | Prep Date: N/A |
| Matrix: Water | Analytical Method: 353.2 | Cal Date: 11/18/2013 10:58 |
| Workgroup #: WG453287 | Analyst: BAF | Run Date: 11/18/2013 18:25 |
| Collect Date: 11/13/2013 12:52 | Dilution: 4 | File ID: SC13112213222401 |
| Sample Tag: | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|------------------------|-------|--------|------|-------|-------|
| Nitrate-Nitrite (as N) | | 2.27 | | 0.200 | 0.100 |

| | | |
|---------------------------------------|---|-----------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: UV-120-1V |
| Client ID: MPL 19-1113-1 | Prep Method: SM4500-P-E-1999 | Prep Date: N/A |
| Matrix: Water | Analytical Method: SM4500-P-E-1999 | Cal Date: 10/30/2013 09:00 |
| Workgroup #: WG452944 | Analyst: DLP | Run Date: 11/15/2013 09:30 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: 1V.1311150930-12 |
| Sample Tag: | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|----------------|--|--------|------|--------|--------|
| Orthophosphate | 14265-44-2 | 0.0399 | J | 0.0500 | 0.0250 |
| J | Estimated value ; the analyte concentration was less than the LOQ. | | | | |

Certificate of Analysis

| | | |
|---------------------------------------|---|-----------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: OVEN |
| Client ID: MPL 19-1113-1 | Prep Method: 160.1/SM2540C | Prep Date: N/A |
| Matrix: Water | Analytical Method: SM2540-C-1997 | Cal Date: |
| Workgroup #: WG453215 | Analyst: ADG | Run Date: 11/18/2013 14:26 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: EN.1311181426-20 |
| Sample Tag: | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|------------------------|-------|--------|------|------|------|
| Total Dissolved Solids | | 144 | | 20.0 | 10.0 |

| | | |
|---------------------------------------|---------------------------------|-----------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: TOC-VWP |
| Client ID: MPL 19-1113-1 | Prep Method: 415.1 | Prep Date: N/A |
| Matrix: Water | Analytical Method: 415.1 | Cal Date: 07/09/2013 14:51 |
| Workgroup #: WG453699 | Analyst: BAF | Run Date: 11/20/2013 19:22 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: TC11202013.009 |
| Sample Tag: 01 | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|----------------------|-------|--------|------|------|-------|
| Total Organic Carbon | TOC | 1.18 | | 1.00 | 0.500 |

| | | |
|---------------------------------------|---|-----------------------------------|
| Sample #: L13110833-02 | PrePrep Method: N/A | Instrument: OVEN |
| Client ID: MPL 19-1113-1 | Prep Method: 160.2/SM2540D | Prep Date: N/A |
| Matrix: Water | Analytical Method: SM2540-D-1997 | Cal Date: |
| Workgroup #: WG453095 | Analyst: ADG | Run Date: 11/18/2013 08:05 |
| Collect Date: 11/13/2013 12:52 | Dilution: 1 | File ID: EN.1311180805-23 |
| Sample Tag: | Units: mg/L | |

| Analyte | CAS # | Result | Qual | LOQ | LOD |
|------------------------|-------|--------|------|------|------|
| Total Suspended Solids | | 13.5 | | 5.00 | 2.50 |

Microbac Laboratories Inc.
Ohio Valley Division Analyst List
December 1, 2013

| | |
|----------------------------------|--|
| 001 - BIO-CHEM TESTING WVDEP 220 | 002 - REIC Consultants, Inc. WVDEP 060 |
| 003 - Sturm Environmental | 004 - MICROBAC PITTSBURGH |
| ADC - ANTHONY D. CANTER | ADG - APRIL D. GREENE |
| AJF - AMANDA J. FICKIESEN | AML - TONY M. LONG |
| AZH - AFTER HOURS | BAF - BRICE A. FENTON |
| BJO - BRIAN J. OGDEN | BLG - BRENDA L. GREENWALT |
| BRG - BRENDA R. GREGORY | CAA - CASSIE A. AUGENSTEIN |
| CAF - CHERYL A. FLOWERS | CEB - CHAD E. BARNES |
| CLC - CHRYS L. CRAWFORD | CLS - CARA L. STRICKLER |
| CLW - CHARISSA L. WINTERS | CPD - CHAD P. DAVIS |
| CRW - CHRISTINA R. WILSON | CSH - CHRIS S. HILL |
| CTB - CHRIS T. BUCINA | DAK - DEAN A. K |
| DCM - DAVID C. MERCKLE | DDE - DEBRA D. ELLIOTT |
| DEV - DAVID E. VANDENBERG | DIH - DEANNA I. HESSON |
| DLB - DAVID L. BUMGARNER | DLP - DOROTHY L. PAYNE |
| DLR - DIANNA L. RAUCH | DSM - DAVID S. MOSSOR |
| ECL - ERIC C. LAWSON | EDL - ERIN D. LONG |
| ENY - EMILY N. YOAK | EPT - ETHAN P. TIDD |
| ERP - ERIN R. PORTER | FJB - FRANCES J. BOLDEN |
| HCB - HEIDI C. BROWN | HJR - HOLLY J. REED |
| JBK - JEREMY B. KINNEY | JDH - JUSTIN D. HESSON |
| JKS - JANE K. SCHAAD | JLL - JOHN L. LENT |
| JWR - JOHN W. RICHARDS | JWS - JACK W. SHEAVES |
| JYH - JI Y. HU | KDW - KATHRYN D. WELCH |
| KEB - KATIE E. BARNES | KHR - KIM H. RHODES |
| KRA - KATHY R. ALBERTSON | KRB - KAELY R. BECKER |
| KSC - KELLY S. CUNNINGHAM | LKN - LINDA K. NEDEFF |
| LLS - LARRY L. STEPHENS | LSB - LESLIE S. BUCINA |
| MBK - MORGAN B. KNOWLTON | MDA - MIKE D. ALBERTSON |
| MDC - MIKE D. COCHRAN | MES - MARY E. SCHILLING |
| MLW - MATTHEW L. WARREN | MMB - MAREN M. BEERY |
| MRT - MICHELLE R. TAYLOR | MSW - MATT S. WILSON |
| PDM - PIERCE D. MORRIS | PIT - MICROBAC WARRENDALE |
| PSW - PEGGY S. WEBB | QX - QIN XU |
| RAH - ROY A. HALSTEAD | REK - BOB E. KYER |
| RLB - BOB BUCHANAN | RM - RAYMOND MALEKE |
| RNP - RICK N. PETTY | RS - ROSEMARY SCOTT |
| RWC - RODNEY W. CAMPBELL | SAV - SARAH A. VANDENBERG |
| SEP - SUZANNE J. PAUGH | SLM - STEPHANIE L. MOSSBURG |
| SLP - SHERI L. PFALZGRAF | TMB - TIFFANY M. BAILEY |
| TMM - TAMMY M. MORRIS | TPA - TYLER P. AMRINE |
| VC - VICKI COLLIER | WJB - WILL J. BEASLEY |
| WTD - WADE T. DELONG | XXX - UNAVAILABLE OR SUBCONTRACT |

December 01, 2013

Qualkey: DOD

| Qualifier | Description |
|-----------|--|
| * | Surrogate or spike compound out of range |
| + | Correlation coefficient for the MSA is less than 0.995 |
| < | Result is less than the associated numerical value. |
| > | Greater than |
| A | See the report narrative |
| B | The reported result is associated with a contaminated method blank. |
| B1 | Target analyte detected in method blank at or above the method reporting limit |
| B3 | Target analyte detected in calibration blank at or above the method reporting limit |
| B4 | The BOD unseeded dilution water blank exceeded 0.2 mg/L |
| C | Confirmed by GC/MS |
| CG | Confluent growth |
| CT1 | The cooler temperature at receipt exceeded regulatory guidelines for requested testing. |
| DL | Surrogate or spike compound was diluted out |
| E | Estimated concentration due to sample matrix interference |
| EDL | Elevated sample reporting limits, presence of non-target analytes |
| EMPC | Estimated Maximum Possible Concentration |
| F, S | Estimated result below quantitation limit; method of standard additions(MSA) |
| F,CT1 | Estimated value; the analyte concentration was less than the RL/LOQ. The cooler temperature at receipt exceeded regula |
| FL | Free Liquid |
| H1 | Sample analysis performed past holding time. |
| I | Semiquantitative result (out of instrument calibration range) |
| J | Estimated concentration; sample matrix interference. |
| J | Estimated value ; the analyte concentration was greater than the highest standard |
| J | Estimated value ; the analyte concentration was less than the LOQ. |
| J | The reported result is an estimated value. |
| J,B | Analyte detected in both the method blank and sample above the MDL. |
| J,CT1 | Estimated value; the analyte concentration was less than the RL/LOQ. |
| J,CT1 | Estimated value; the analyte concentration was less than the RL/LOQ. The cooler temperature at receipt exceeded regula |
| J,P | Estimate; columns don't agree to within 40% |
| J,S | Estimated concentration; analyzed by method of standard addition (MSA) |
| JB | The reported result is an estimated value. The reported result is also associated with a contaminated method blank. |
| JQ | The reported result is an estimated value and one or more quality control criteria failed. See narrative. |
| L | Sample reporting limits elevated due to matrix interference |
| L1 | The associated blank spike (LCS) recovery was above the laboratory acceptance limits. |
| L2 | The associated blank spike (LCS) recovery was below the laboratory acceptance limits. |
| M | Matrix effect; the concentration is an estimate due to matrix effect. |
| N | Nontarget analyte; the analyte is a tentatively identified compound (TIC) by GC/MS |
| NA | Not applicable |
| ND | Not detected at or above the reporting limit (RL/MDL). |
| ND, CT1 | Analyte was not detected. The concentration is below the reported LOD. The cooler temperature at receipt exceeded reg |
| ND, H1 | Not detected; Sample analysis performed past holding time. |
| ND, L | Not detected; sample reporting limit (RL) elevated due to interference |
| ND, S | Not detected; analyzed by method of standard addition (MSA) |
| NF | Not found by library search |
| NFL | No free liquid |
| NI | Non-ignitable |
| NR | Analyte is not required to be analyzed |
| NS | Not spiked |
| P | Concentrations >40% difference between the two GC columns |
| Q | One or more quality control criteria failed. See narrative. |
| QNS | Quantity of sample not sufficient to perform analysis |
| RA | Reanalysis confirms reported results |
| RE | Reanalysis confirms sample matrix interference |
| S | Analyzed by method of standard addition (MSA) |
| SMI | Sample matrix interference on surrogate |
| SP | Reported results are for spike compounds only |
| TIC | Library Search Compound |
| TNTC | Too numerous to count |
| U | Analyte was not detected. The concentration is below the reported LOD. |
| UJ | Undetected; the MDL and RL are estimated due to quality control discrepancies. |
| UQ | Undetected; the analyte was analyzed for, but not detected. |
| W | Post-digestion spike for furnace AA out of control limits |
| X | Exceeds regulatory limit |
| X, S | Exceeds regulatory limit; method of standard additions (MSA) |
| Z | Cannot be resolved from isomer - see below |





CHAIN-OF-CUSTODY RECORD

[illegible]

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

Internal Chain of Custody Report

Login: L13110833

Account: 3005

Project: 3005.011

Samples: 2

Due Date: 25-NOV-2013

Samplenum **Container ID** **Products**
L13110833-01 278525 RSK175EXT 300

Bottle: 1

| Seq. | Purpose | From | To | Date/Time | Accept | Relinquish | pH |
|------|---------|--------|-----|-------------------|--------|------------|----|
| 1 | LOGIN | COOLER | W1 | 14-NOV-2013 13:28 | CLS | | |
| 2 | ANALYZ | W1 | SEM | 21-NOV-2013 11:28 | JBK | CLS | |
| 3 | STORE | SEM | A1 | 22-NOV-2013 11:20 | CLS | JBK | |

Samplenum **Container ID** **Products**
L13110833-01 278526 RSK175EXT ALK-B ALK-C

Bottle: 1

| Seq. | Purpose | From | To | Date/Time | Accept | Relinquish | pH |
|------|---------|--------|-----|-------------------|--------|------------|----|
| 1 | LOGIN | COOLER | W1 | 14-NOV-2013 13:28 | CLS | | |
| 2 | ANALYZ | W1 | WET | 18-NOV-2013 15:00 | BAF | RS | |
| 3 | STORE | WET | A1 | 19-NOV-2013 15:54 | CLS | BAF | |

Samplenum **Container ID** **Products**
L13110833-01 278527 830-MBA P04

Bottle: 1

| Seq. | Purpose | From | To | Date/Time | Accept | Relinquish | pH |
|------|---------|--------|-----|-------------------|--------|------------|----|
| 1 | LOGIN | COOLER | W1 | 14-NOV-2013 13:28 | CLS | | |
| 2 | ANALYZ | W1 | WET | 14-NOV-2013 13:55 | BAF | RS | |
| 3 | STORE | WET | A1 | 18-NOV-2013 08:22 | RS | DLP | |

Samplenum **Container ID** **Products**
L13110833-01 278528 830-MBA TSS

Bottle: 1

| Seq. | Purpose | From | To | Date/Time | Accept | Relinquish | pH |
|------|---------|--------|-----|-------------------|--------|------------|----|
| 1 | LOGIN | COOLER | W1 | 14-NOV-2013 13:28 | CLS | | |
| 2 | ANALYZ | W1 | WET | 18-NOV-2013 08:12 | ADG | RS | |
| 3 | STORE | WET | A1 | 22-NOV-2013 08:16 | AZH | ADG | |

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L13110833

Account: 3005

Project: 3005.011

Samples: 2

Due Date: 25-NOV-2013

Samplenum **Container ID** **Products**
L13110833-01 278529 RSK175EXT TOC

Bottle: 1

| Seq. | Purpose | From | To | Date/Time | Accept | Relinquish | pH |
|------|---------|--------|-----|-------------------|--------|------------|----|
| 1 | LOGIN | COOLER | W1 | 14-NOV-2013 13:28 | CLS | | <2 |
| 2 | ANALYZ | W1 | WET | 20-NOV-2013 17:15 | BAF | CLS | |
| 3 | STORE | WET | A1 | 21-NOV-2013 17:15 | RS | DCM | |

Samplenum **Container ID** **Products**
L13110833-01 278530 830-MBA AG-MS AS-MS BA-MS BE-AX CA CD-MS CO-MS

Bottle: 1

| Seq. | Purpose | From | To | Date/Time | Accept | Relinquish | pH |
|------|---------|--------|--------|-------------------|--------|------------|----|
| 1 | LOGIN | COOLER | W1 | 14-NOV-2013 13:28 | CLS | | |
| 2 | PREP | W1 | DIG | 15-NOV-2013 05:48 | REK | AZH | |
| 3 | ANALYZ* | DIG | METALS | 18-NOV-2013 08:47 | PDM | REK | |
| 4 | STORE | DIG | A1 | 20-NOV-2013 14:02 | ERP | CLS | |
| 5 | STORE | DIG | A1 | 25-NOV-2013 13:06 | CLS | ERP | |

**Sample extract/digestate/leachate*

Bottle: 2

| Seq. | Purpose | From | To | Date/Time | Accept | Relinquish | pH |
|------|---------|--------|----|-------------------|--------|------------|----|
| 1 | LOGIN | COOLER | W1 | 14-NOV-2013 13:28 | CLS | | |

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L13110833-01 278531 RSK175EXT CN-WD

Bottle: 1

| Seq. | Purpose | From | To | Date/Time | Accept | Relinquish | pH |
|------|---------|--------|-----|-------------------|--------|------------|----|
| 1 | LOGIN | COOLER | W1 | 14-NOV-2013 13:28 | CLS | | |
| 2 | ANALYZ | W1 | WET | 19-NOV-2013 14:12 | DCM | CLS | |
| 3 | STORE | WET | A1 | 22-NOV-2013 15:43 | CLS | DCM | |

Samplenum **Container ID** **Products**
L13110833-02 278532 RSK175EXT 300

Bottle: 1

| Seq. | Purpose | From | To | Date/Time | Accept | Relinquish | pH |
|------|---------|--------|-----|-------------------|--------|------------|----|
| 1 | LOGIN | COOLER | W1 | 14-NOV-2013 13:28 | CLS | | |
| 2 | ANALYZ | W1 | SEM | 21-NOV-2013 11:28 | JBK | CLS | |
| 3 | STORE | SEM | A1 | 22-NOV-2013 11:20 | CLS | JBK | |

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L13110833

Account: 3005

Project: 3005.011

Samples: 2

Due Date: 25-NOV-2013

Samplenum **Container ID** **Products**
L13110833-02 278533 830-MBA ALK-B ALK-C

Bottle: 1

| Seq. | Purpose | From | To | Date/Time | Accept | Relinquish | pH |
|------|---------|--------|-----|-------------------|--------|------------|----|
| 1 | LOGIN | COOLER | W1 | 14-NOV-2013 13:28 | CLS | | |
| 2 | ANALYZ | W1 | WET | 18-NOV-2013 15:00 | BAF | RS | |

Samplenum **Container ID** **Products**
L13110833-02 278534 RSK175EXT PO4

Bottle: 1

| Seq. | Purpose | From | To | Date/Time | Accept | Relinquish | pH |
|------|---------|--------|-----|-------------------|--------|------------|----|
| 1 | LOGIN | COOLER | W1 | 14-NOV-2013 13:28 | CLS | | |
| 2 | ANALYZ | W1 | WET | 14-NOV-2013 13:55 | BAF | RS | |
| 3 | STORE | WET | A1 | 18-NOV-2013 08:22 | RS | DLP | |

Samplenum **Container ID** **Products**
L13110833-02 278535 830-MBA TSS

Bottle: 1

| Seq. | Purpose | From | To | Date/Time | Accept | Relinquish | pH |
|------|---------|--------|-----|-------------------|--------|------------|----|
| 1 | LOGIN | COOLER | W1 | 14-NOV-2013 13:28 | CLS | | |
| 2 | ANALYZ | W1 | WET | 18-NOV-2013 08:12 | ADG | RS | |
| 3 | STORE | WET | A1 | 22-NOV-2013 08:16 | AZH | ADG | |

Samplenum **Container ID** **Products**
L13110833-02 278536 TOC

Bottle: 1

| Seq. | Purpose | From | To | Date/Time | Accept | Relinquish | pH |
|------|---------|--------|-----|-------------------|--------|------------|----|
| 1 | LOGIN | COOLER | W1 | 14-NOV-2013 13:28 | CLS | | <2 |
| 2 | ANALYZ | W1 | WET | 18-NOV-2013 16:50 | BAF | RS | |
| 3 | STORE | WET | A1 | 21-NOV-2013 17:15 | RS | DCM | |

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L13110833

Account: 3005

Project: 3005.011

Samples: 2

Due Date: 25-NOV-2013

| <u>Samplenum</u> | <u>Container ID</u> | <u>Products</u> |
|------------------|---------------------|--|
| L13110833-02 | 278537 | AG-MS AS-MS BA-MS BE-AX CA CD-MS CO-MS CR-MS (|

Bottle: 1

| Seq. | Purpose | From | To | Date/Time | Accept | Relinquish | pH |
|------|---------|--------|--------|-------------------|--------|------------|----|
| 1 | LOGIN | COOLER | W1 | 14-NOV-2013 13:28 | CLS | | |
| 2 | PREP | W1 | DIG | 15-NOV-2013 05:48 | REK | AZH | |
| 3 | ANALYZ* | DIG | METALS | 18-NOV-2013 08:47 | PDM | REK | |
| 4 | STORE | DIG | A1 | 20-NOV-2013 14:02 | ERP | CLS | |
| 5 | STORE | DIG | A1 | 25-NOV-2013 13:06 | CLS | ERP | |

**Sample extract/digestate/leachate*

Bottle: 2

| Seq. | Purpose | From | To | Date/Time | Accept | Relinquish | pH |
|------|---------|--------|----|-------------------|--------|------------|----|
| 1 | LOGIN | COOLER | W1 | 14-NOV-2013 13:28 | CLS | | >2 |

Comments: Added 5ml HNO3 Lot#: RGT 28569 11/14/13 @ 1325. PH did adjust. CLS

**Sample extract/digestate/leachate*

| <u>Samplenum</u> | <u>Container ID</u> | <u>Products</u> |
|------------------|---------------------|-----------------|
| L13110833-02 | 278538 | CN-WD |

Bottle: 1

| Seq. | Purpose | From | To | Date/Time | Accept | Relinquish | pH |
|------|---------|--------|-----|-------------------|--------|------------|----|
| 1 | LOGIN | COOLER | W1 | 14-NOV-2013 13:28 | CLS | | |
| 2 | ANALYZ | W1 | WET | 19-NOV-2013 14:12 | DCM | CLS | |
| 3 | STORE | WET | A1 | 22-NOV-2013 15:43 | CLS | DCM | |

A1 - Sample Archive (COLD)
 A2 - Sample Archive (AMBIENT)
 F1 - Volatiles Freezer in Login
 V1 - Volatiles Refrigerator in Login
 W1 - Walkin Cooler in Login

